

Amendments to the Specification:

Please replace paragraph [0008] with the following amended paragraph:

5 Step 110: the electronic device 20 receives a logic address ~~[[of]]~~ used for
accessing the flash memory 30 from the host 10, and calculates the zone of
the flash memory 30 corresponding to the logic address;

Please replace paragraph [0014] with the following amended paragraph:

10 Step 210: ~~obtain~~ calculate the zone corresponding to the logic address;

Please replace paragraph [0020] with the following amended paragraph:

15 According to the claimed invention, a method of accessing a nonvolatile
memory is disclosed. The nonvolatile memory is installed in an electronic
device and comprises a plurality of zones, each zone comprising a
plurality of spare blocks, the method comprises the following steps: (a)
store the look up table of each zone in at least a spare block; (b) the
electronic device ~~obtains~~ calculates one of the zones of the nonvolatile
20 memory corresponding to a logic address ~~[[of]]~~ used by a host for
accessing the nonvolatile memory; (c) the electronic device reads the look
up table of the zone ~~obtained~~ calculated in step (b) from at least one of the
spare blocks and stores the look up table in a memory of the electronic
device; and (d) the host accesses the nonvolatile memory according to the
25 look up table stored in the memory of the electronic device.

Please replace paragraph [0027] with the following amended paragraph:

In view of the disadvantages of the conventional methods of accessing a nonvolatile memory, the present invention provides a method of accessing a flash memory in which the host constructs look up tables of all zones of the flash memory in at least a spare block when the host reads the flash memory at the first time. Since the flash memory is nonvolatile, the look up tables will be kept in the spare blocks even when power is interrupted. As a result, whenever the host 10 attempts to access the flash memory 30 or changes the zones ~~of accessing~~ accessed in the flash memory 30, the controller 22 of the electronic device 20 only needs to read the look up table in the spare block of the flash memory 30 and store the look up tables in the memory 30 so that the time of constructing a new look up table is saved. In addition, since each zone of the flash memory 30 has spare blocks, the look up table of each zone can be correspondingly stored in the spare block of the corresponding zone. Alternatively, the look up tables of all zones can also be stored in the spare blocks of one certain zone. According to the present invention, the controller 22 only has to construct the look up tables once and store the look up tables in the spare blocks, and ~~[[the]]~~ then read the look up tables stored in the spare blocks of the flash memory 30 whenever the host 10 changes the zone ~~of accessing~~ accessed in the flash memory 30. Consequently, the speed of accessing the flash memory 30 is improved.

Please replace paragraph [0029] with the following amended paragraph:

Step 310: determine if the flash memory 30 contains look up tables of all zones; if not, this generally means that it is the first time the host 10

~~accesses~~ has accessed the flash memory 30, and therefore execute Step 320; if so, this means the flash memory 30 has been accessed by the host 10 before, and the look up tables of all zones are already stored in the spare blocks, thus execute Step 330;

5

Please replace paragraph [0035] with the following amended paragraph:

Please refer to Fig.5. Fig.5 is a schematic diagram illustrating how the host 10 accesses the flash memory 30. As shown in Fig.5, a 64MB flash memory is used as an example. The flash memory 30 is divided into four zones of 16MB. Each zone has 1024 blocks where 1000 blocks are used as data blocks and the rest 24 blocks are spare blocks. The capacity of each block is 16KB, and the look up table corresponding to each zone is stored in the spare blocks. Generally, the capacity of a look up table is 2KB, and the look up tables of each zone can be stored in the spare blocks of the corresponding zone, or in the spare blocks of a certain zone. If old data is stored in a first block 34 (data block) of zone 1 of the flash memory 30, the host 10 can read the look up table of zone 1 according to the logic address of the old data, and read the old data from the first block 34 according to the look up table of zone 1 for editing the old data. The new data that has been edited is supposed to replace the old data, however, the flash memory 30 can only be written from "1" to "0" rather than from "0" to "1". Consequently, a second block 36 (spare block) is therefore used to store new data, and the first block 34 is then erased as a new spare block. Following that the look up table of zone 1 is updated for designating the logic address of the old data to the second block 36. The address of the look up table is changed after the host 10 accesses the flash memory 30,

Appl. No. 10/708,445
Amdt. dated September 04, 2006
Reply to Office action of July 14, 2006

thus each zone requires a corresponding look up table. Normally, it takes hundreds of microseconds to construct a look up table of a zone. Nevertheless, it only takes tens of microseconds to read a look up table constructed in the spare block in advance.